Fractions

Q1. Fill in the blanks.

1. An improper fraction of $8\frac{4}{9}$ is _____

2. $\frac{7}{21} + -- = \frac{12}{21}$

3. The equivalent fraction of $\frac{3}{5}$ having numerator 24 is _____

4. Fractions with same denominators are called _____

5. Which is greater $\frac{3}{8}$ or $\frac{3}{5}$

6. What fraction of a day is 6 hours?

7. Is $\frac{5}{9}$ equals to $\frac{4}{5}$?

8. A fraction is said to be in the simplest (or lowest) form if its numerator and denominator have no common factor except _____.

9. In an improper fraction, the numerator is _____ than the denominator.

10. The simplest form of $\frac{18}{36}$ is _____

Q2. Compare the following. [<, >, =]

1. a) $\frac{8}{15}$ □ $\frac{4}{15}$

   b) $\frac{4}{7}$ and $\frac{3}{8}$

   c) $\frac{5}{8}$ and $\frac{5}{7}$

2. Show $\frac{3}{5}, \frac{5}{5}$ and $\frac{7}{5}$ $on\ a\ number\ line.$

Q3. Express as mixed fractions.

a. $\frac{17}{7}$

b. $\frac{38}{5}$

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c. $\dfrac{19}{6}$

Q4. Express as improper fractions.

a. $3\dfrac{2}{8}$

b. $5\dfrac{7}{8}$

c. $4\dfrac{1}{3}$

Q5. Find the equivalent fraction form.

a. $\dfrac{66}{99}$

b. $\dfrac{32}{48}$

c. $\dfrac{21}{24}$

Q7. Find the equivalent fraction of $\dfrac{7}{15}$ with numerator 35?

Q8. Find the equivalent fraction of $\dfrac{45}{54}$ with numerator 5?

Q9. Write the natural numbers between 50 to 65 what fraction of them are prime numbers?

Q10. Solve.

a. $\dfrac{5}{12} - \dfrac{3}{4}$

b. $2\dfrac{1}{5} + 4\dfrac{3}{4}$

c. $4\dfrac{4}{5} - 3\dfrac{7}{9}$

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d. $\frac{1}{4} + \frac{1}{5} + \frac{1}{6}$

e. $1 - \frac{3}{5}$

f. $4 - \frac{1}{2}$

Q11. Raju had $\frac{5}{9}$ of a cake. He gave $\frac{2}{9}$ out of that to his sister. How much is left?

Q12. Meena bought $2\frac{1}{4}$ kg of vegetables and Reena bought $3\frac{1}{2}$ kg of vegetables. Find the total weight of vegetables bought by both of them.

Q11. Find the sum.

a) $4\frac{1}{2} + \frac{1}{10} + 3\frac{1}{5}$

b) $2\frac{1}{8} + 1\frac{1}{16} + \frac{3}{4}$

c) $8\frac{4}{9} + 5\frac{1}{3}$

Q12. Subtract.

a) $4\frac{5}{8} - 3\frac{3}{16}$

b) $3\frac{1}{15} - 2\frac{1}{5}$

c) subtract $\frac{3}{4}$ from $3\frac{1}{7}$

d) Subtract $\frac{4}{9}$ from 6.

Fractions

I. | Important Points.

1. Fraction whose Numerators are less than denominators are called <u>Proper fractions.</u>

2. Fractions whose Numerators are greater than Denominators an called <u>Improper fractions.</u>

3. If the Numerators of a fraction is less than Denominator the fraction is less than 1.

4. If Numerator of a fraction is greater than denominator then the fraction is more than 1.

5. If Numerator is equal to the Denominator than the fraction is equal to 1.

6. A Fraction with numerate 1 is called <u>UNIT FRACTION.</u>

7. The Fraction is said to be in the lowest term or in simplest form if the H.C.F. of its numerator and the denominator is 1.

8. A group of fraction with the same denominator are called <u>LIKE FRACTIONS</u>.

9. A group of fraction with the different denominators are called <u>UNLIKE FRACTIONS.</u>

10. Different fractions represents the same part are called <u>EQUIVALENT FRACTIONS.</u>

11. Proper fractions are always less than 1.

12. Improper fractions are greater than or equal to 1.

13. Of the two fractions with same numerator, the fraction with greater denominator is smaller.

14. Of the two fractions with same denominator the fraction with greater numerator is greater.

II. | Solve the following

(i) $\dfrac{2}{7} = \dfrac{8}{\boxed{}}$ (ii) $\dfrac{5}{8} = \dfrac{10}{\boxed{}}$

(iii) $\dfrac{3}{5}$ = $\dfrac{8}{20}$ (iv) $\dfrac{45}{60}$ = $\dfrac{15}{\boxed{}}$

(v) $\dfrac{18}{24}$ = $\dfrac{\boxed{}}{4}$ (vi) $\dfrac{2}{9}$ = $\dfrac{\boxed{}}{63}$

(vii) $\dfrac{15}{35}$ = $\dfrac{\boxed{}}{7}$ (viii) $\dfrac{4}{5}$ = $\dfrac{\boxed{}}{140}$

(ix) $\dfrac{8}{64}$ = $\dfrac{\boxed{}}{8}$ (x) $\dfrac{12}{72}$ = $\dfrac{2}{\boxed{}}$

III.   Reduce the following fractions in to simplest form.

(i) $\dfrac{48}{60}$ (ii) $\dfrac{150}{60}$ (iii) $\dfrac{84}{98}$

(iv) $\dfrac{12}{52}$ (v) $\dfrac{7}{28}$ (vi) $\dfrac{36}{24}$

(vii) $\dfrac{112}{128}$ (viii) $\dfrac{63}{189}$ (ix) $\dfrac{90}{104}$ (x) $\dfrac{72}{120}$

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IV. Find an equivalent fraction of

$\dfrac{3}{5}$ having

(a) Denominator   20

(b) Numerator   36

(c) Denominator   75

(d) Numerator   45

(e) Denominators   125

V. Find an equivalent fraction of

$\dfrac{16}{144}$ having

(a) numerator   2

(b) denominator   72

(c) numerator   4

(d) numerator   1

VI. Change the following into improper fraction

(i) $\dfrac{2}{5}$ (ii) $\dfrac{2}{5}$ (iii) $\dfrac{3}{7}$

(iv) $\dfrac{5}{7}$ (v) $\dfrac{18}{23}$ (vi) $\dfrac{7}{9}$

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VII.   Change the following into mixed number

(i) $\dfrac{8}{3}$ (ii) $\dfrac{16}{3}$ (iii) $\dfrac{54}{7}$ (iv) $\dfrac{209}{14}$

(v) $\dfrac{67}{13}$ (vi) $\dfrac{98}{23}$ (vii) $\dfrac{145}{12}$ (viii) $\dfrac{37}{9}$

VIII.   Which of the following pair of fraction are equivalent?

(i) $\dfrac{6}{13}$ and $\dfrac{30}{65}$ (iv) $\dfrac{4}{9}$, $\dfrac{32}{72}$

(ii) $\dfrac{16}{20}$, $\dfrac{20}{35}$ (v) $\dfrac{12}{44}$, $\dfrac{21}{76}$

(iii) $\dfrac{8}{15}$, $\dfrac{40}{75}$ (vi) $\dfrac{11}{17}$, $\dfrac{55}{85}$

IX.   Fill in the blanks by putting   < ,   > ,   a   =

(i) $\dfrac{7}{11}$ _ $\dfrac{5}{11}$ (ii) $\dfrac{17}{19}$ _ $\dfrac{9}{19}$

(ii) $\dfrac{3}{21}$ $-$ $\dfrac{21}{21}$ (iv) $\dfrac{5}{8}$ $-$ $\dfrac{5}{16}$

(v) $\dfrac{13}{20}$ $-$ $\dfrac{17}{20}$ (vi) $\dfrac{18}{25}$ $-$ $\dfrac{18}{24}$

X. Arrange the following in Ascending and descending order.

(i) $\dfrac{15}{14}$, $\dfrac{15}{8}$, $\dfrac{15}{19}$, $\dfrac{15}{3}$

(ii) $\dfrac{2}{17}$, $\dfrac{15}{17}$, $\dfrac{9}{17}$, $\dfrac{13}{17}$

(iii) $\dfrac{11}{9}$, $\dfrac{23}{9}$, $\dfrac{15}{9}$, $\dfrac{7}{9}$

(iv) $\dfrac{15}{23}$, $\dfrac{25}{23}$, $\dfrac{9}{23}$, $\dfrac{16}{23}$

(v) $\dfrac{17}{8}$, $\dfrac{17}{16}$, $\dfrac{17}{5}$, $\dfrac{17}{11}$

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XI. Solve

(i) $\dfrac{1}{5} + \dfrac{3}{10}$ (ii) $\dfrac{2}{4} + \dfrac{1}{6} + \dfrac{5}{12}$

(iii) $\dfrac{3}{10} + \dfrac{1}{15}$ (iv) $\dfrac{7}{15} + \dfrac{2}{5}$

(v) $\dfrac{5}{6} + \dfrac{7}{12} + \dfrac{1}{9}$ (vi) $\dfrac{9}{16} \quad \dfrac{5}{12}$

(vii) $\dfrac{5}{14} - \dfrac{2}{7}$ (viii) $\dfrac{5}{16} - \dfrac{5}{24}$

(ix) $3 - \dfrac{4}{5}$ (x) $\dfrac{5}{6} - \dfrac{7}{12}$ (xi) $\dfrac{31}{15} - \dfrac{5}{6}$

XII. Find the difference between.

(i) $\dfrac{7}{15}$ and $\dfrac{9}{10}$ (ii) $\dfrac{2}{24}$ and $\dfrac{15}{18}$

(iii) $\dfrac{5}{18}$ and $\dfrac{11}{12}$ (iv) $\dfrac{2}{7}$ and $\dfrac{5}{14}$

(v) $\dfrac{13}{18}$ and $\dfrac{7}{11}$ (vi) $\dfrac{5}{12}$ and $\dfrac{13}{15}$